

Self-Regulation/Social-Emotional Development

I. Background Information

Measure/ Source:

- **Leiter-Revised Sustained Attention Task**
- Publishers: Stoelting Co.
- For more detailed information, please refer to: Roid, G. H. and Miller, L. J. (1997).
Examiners manual: Leiter International Performance Scale-Revised. Chicago: Stoelting Co.

Purpose of Measure:

As used in the Family and Child Experiences Survey: The Attention Sustained (AS) subtest is one of ten subtests in the Attention and Memory battery that assesses prolonged visual attention, that is, the ability to scan visually and yet to be selective on a repetitive motor task that is perceived by the typical child as "boring." The AS subtest score is indicative of the child's ability to pay sustained attention to a repetitive task and to pay attention to detail. A low score on this subtest might be indicative of a deficit in underlying attentional problems that could be affecting the child's performance on other assessment tasks.

Population Measure Developed With:

- 2479 children in the FACES sample between the ages of 3 and 5.
- The FACES sample was randomly drawn from a stratified probability sample of 43 Head Start programs selected to represent the universe of Head Start programs in the 50 states, excluding migrant programs and American Indian programs.

	African American		White		Hispanic		Other		Total	
	N	%	N	%	N	%	N	%	N	%
Male	343	13.8	471	19.0	363	14.6	65	2.6	1242	50.1
Female	383	15.4	415	16.7	371	14.9	68	2.7	1237	49.9
Total	726	29.3	886	35.7	734	29.6	133	5.4	2479	100

Key Constructs of Measure:

Sustained Attention/Staying on Task: The AS materials consist of several pages of pictures of 2-3 objects presented systematically in rows and columns on the page, and then later randomly, with a target picture at the top of the page. The child is to cross out as many of the target pictures (which are interspersed among non-target pictures) as possible during the allotted time.

Norming of Measure (Criterion or Norm): Criterion

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II. Administration of Measure

Leiter-R Sustained Attention Task (Con't.)

Who is the Respondent to the Measure?:

The set of individually administered tests is designed to assess skills in memory or attention in children and adolescents from 2 years of age through 20 years, 11 months of age.

Who Administers Measure/ Training Required?:

Trained assessors. Training is required for the standardized administrative procedures of the task.

Setting (e.g. 1 on1, group level, etc): 1 on 1

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III. Functioning of Measure

Leiter-R Sustained Attention Task (Con't.)

Reliability:

Reports from “Examiners manual: Leiter International Performance Scale -Revised” (Roid & Miller, 1997):

Internal Consistency (Cronbach’s Alpha)

- .83 for 2-3 year olds
- .83 for 4-5 year olds

Test-Retest

- .85 (NB. The examiner’s manual warns about potential practice effects with some of the attention and memory subtests (but not necessarily the AS))

Validity:

Reports from “Examiners manual: Leiter International Performance Scale -Revised” (Roid & Miller, 1997):

Concurrent Validity:

The Attention composite, of which the AS is one of two subtests, correlated with the Wechsler Intelligence Scale for Children (WISC-III) at .83. This relatively high level of correlation appears to be due primarily to the AS score, because an exploratory factor analysis found that the AS score loaded at .82 for 2-3 year olds and .63 for 4-5 year olds for the Attention composite. Thus, the AS subtest appears to be a strong contributor to the Leiter-R overall measure of attention, and seems to be relatively strongly related to other measures of cognitive abilities, as predicted.

WESTAT

Sensitivity to Environmental Variation (specify if intervention):

In FACES, the sustained attention task is part of a battery of tests that, as a set, measures the school readiness skills of preschool children from low income families.

Concerns, Comments & Recommendations:

- Short, objective test with reasonably good validity and reliability.
- As a single subtest from the Leiter-R, its scores cannot provide information related to global intellectual ability, but rather focus on the child's ability to focus and attend to a task, which is a necessary prerequisite for learning.
- It is not designed to reveal change in abilities over time, but rather, to be diagnostic of potential learning difficulties.
- Scores are given as scale scores.
- The strengths of the Leiter-R are that, as a nonverbal assessment, it is designed for samples involving children from different cultures, or whose primary language is not English, or where there are large proportions of children with possible learning or attention difficulties.